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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,752	01/05/2001	Terry L. Williams	6785-120	3897

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EXAMINER

NGUYEN, TU X

ART UNIT	PAPER NUMBER
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2684

8

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/755,752

Applicant(s)

WILLIAMS, TERRY L.

Examiner

Tu X Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 6-11, 13-15, 18-23, are rejected under 35 U.S.C. 102(e) as being anticipated by Dutta (US Patent 5,923,648)

Regarding claims 1 and 13, Dutta discloses a wireless cellular communication system comprising a base station (150, fig.2) and at least one repeater (155) communicating over a wireless backhaul link for communicating with a plurality of mobile subscribers, a method for improved backhaul efficiency, comprising the steps of:

dynamically assigning for said backhaul link at least one packet (see col.2 lines 10-19) channel for transmission of selected packets on a backhaul signal for a subscriber (see col.6 lines 27-33), said at least one packet channel comprising at least an RF frequency and a channel definition (see col.6 lines 37-39, col.7 lines 1-32); and

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transmitting said selected packets on said at least one packet channel between said at least one repeater and said base station (see col.6 lines 36-37).

Regarding claims 2 and 14, Dutta discloses the step of performing said assigning step in response to a request for communicating over said backhaul signal for one of said plurality of mobile subscribers (see col.9 line 55 through col.15 line 66).

Regarding claims 3 and 15, Dutta discloses said request include a priority field (see col.13 lines 9-25), "real time" and "none real time" corresponds to "priority".

Regarding claims 6 and 18, Dutta discloses channel definition includes a set of parameters which defining said packet channel, said parameters comprising at least one of:

- a. a number of selected packets which can be sent over said assigned packet channel (see col.7 lines 54-55 and col.28 lines 21-24); and
- b. a number frames allocated for transmission of said selected packets (see col.20 line 65 through col.21 line 10).

Regarding claims 7 and 19, Dutta discloses channel definition further includes an identified time for transmission of said selected packets (see col.23 lines 26-66).

Regarding claims 8 and 20, Dutta discloses backhaul signal comprises at least one selected from the group consisting of user traffic and control data (see col.2 lines 1-34).

Regarding claims 9 and 21, Dutta discloses user traffic is comprised of voice traffic (see col.13 lines 19-20), "real time" reads on "voice".

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Regarding claims 10 and 22, Dutta discloses packets are transmitted over said backhaul link using a higher order modulation (see col. 21-22).

Regarding claims 11 and 23, Dutta discloses the step of converting between a packet based backhaul signal and a non-packet based ground link signal (see col.8 lines 57-61).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5 and 17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta and further in view of Rudrapatna et al. (US Patent 5,592,470).

Regarding claims 5 and 17, Dutta fails to disclose the step of dynamically reassigning at least a portion of said assigned packet channel for transmission of a second backhaul signal (see col.6 lines 4-29).

Rudrapatna et al. disclose the step of dynamically reassigning at least a portion of said assigned packet channel for transmission of a second backhaul signal (see col.6 lines 4-29). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dutta with the above teaching of Rudrapatna et al. in order to enhanced allocating/sharing bandwidth/channels to differing services based on demand schedule matched to demand patterns.

6. Claims 4 and 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta and further in view of Pierce et al. (US Patent 5,666,364).

Regarding claims 4 and 16, Dutta fails to disclose a comparing step wherein said data priority fields are compared to determined whether to terminate transmission of a lower priority transmission to allow transmission of a higher priority transmission.

Pierce et al. disclose a comparing step wherein said data priority fields are compared to determined whether to terminate transmission of a lower priority transmission to allow transmission of a higher priority transmission (see col.3 lines 55-66). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dutta with the above teaching of Pierce et al. in order to allow subscriber to assign priority levels and/or coming-call options with regard to the particular call types serviced by an associated network entity.

7. Claims 12 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Rudrapatna et al. and further in view of Kapoor (US Patent 6,404,769).

Regarding claims 12 and 24, Dutta discloses at least one repeater comprises a plurality of repeaters, wherein one of said at least one packet channel is used to transmit packets between multiple repeaters selected from said plurality of repeaters and further in view of said base station (see fig.1).

Kapoor discloses at least one repeater comprises a plurality of repeaters, wherein one of said at least one packet channel is used to transmit packets between

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multiple repeaters selected from said plurality of repeaters and further in view of said base station (see col.4 lines 22-41). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Dutta with the above teaching of Kapoor in order to provide a method of optimal routing packets for continuous communications coverage to most areas of the earth's surface.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is (703) 305-3427. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MAUNG NAY A, can be reached at (703) 308-7749.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

TN
November 26, 2003

Mark Cousins